# Revolutionizing Infrastructure:

# Innovative Approach Used in Leavenworth, Washington

By Rusty Mulanax





With a steady influx of visitors throughout the year, the urgency for effective strategies to address the deteriorating utility lines had reached a critical point with City Officials, Business owners, and residents. Enter Allied Trenchless, a pioneer in trenchless technology, which has made significant strides in rehabilitating the town's aging clay sewer mains. By leveraging cutting-edge technologies, Allied Trenchless has not only managed to reduce the multimilliondollar costs and timelines typically associated with extensive excavation proj-

ects but has also preserved the town's unique charm and accessibility for both residents and visitors.

## Navigating Unique Challenges

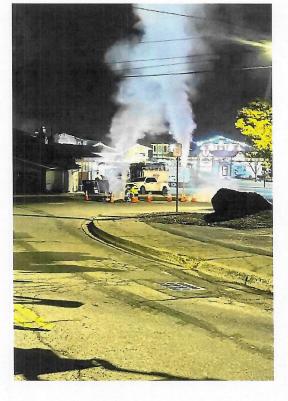
Leavenworth's "Front Street" allure as a tourist destination comes with its own set of challenges, particularly in maintaining the integrity of its underground utility lines. The recent project undertaken by Allied Trenchless involved three lines with varying levels of complexity.

Line #1 exhibits a transition from a diameter of 15 in. to 12 in., subsequently reducing to 10 in., while traversing a cumulative distance of 408 ft and incorporating 63 lateral reinstatements. Line #2 demonstrates a transition from 15 in. to 12 in., covering an overall length of 540 ft with 47 lateral reinstatements. Line #3 reflects a transition from 12 in. to 15 in., with a total length of 270 ft and 36 lateral reinstatements.









The three lines were categorized as non-lineable due to the use of conventional pull-in-place liners, as they maneuvered around boulders in the alley during their installation in the 1940s.

The decision to employ trenchless rehabilitation techniques, specifically utilizing Emagineered Solutions' THE SHOOTER, was driven by the need to minimize community disruption while effectively addressing the deteriorating condition of the utility lines with a nodig approach.

The project was not without its challenges. The intricate nature of the sewer pipeline transition required careful planning and execution to ensure that the integrity of the existing infrastructure was maintained. Allied Trenchless approached the project with a commitment to innovation and efficiency, recognizing that the success of the rehabilitation would hinge on their ability to navigate the unique challenges presented by the town's layout and the existing utility lines.

#### Minimized Disruption: A Community-Centric Approach

One of the most compelling advantages of trenchless technology, especially in a tourist-centric locale like Leaven-

worth, is its ability to significantly reduce disruption to daily life. Traditional excavation methods often necessitate extensive road closures and detours, creating considerable inconvenience for both residents and visitors. By opting for THE SHOOTER, Allied Trenchless executed the project with minimal surface disruption, achieving the remarkable feat of zero pits. This innovative approach allowed local businesses to continue their operations uninterrupted and ensured that tourists could fully enjoy their experiences without the hindrance of construction-related obstacles.

The preservation of the community's daily rhythm is crucial, particularly in a town that thrives on tourism. The seamless execution of the project not only maintained the aesthetic appeal of Leavenworth but also reinforced the town's reputation as a welcoming destination. By prioritizing minimal disruption, Allied Trenchless demonstrated a commitment to the community's well-being, fostering goodwill among residents and visitors alike.

# Time Efficiency: Accelerating Project Timelines

In addition to minimizing disruption, trenchless rehabilitation techniques are inherently more time-efficient than traditional methods. THE SHOOTER facilitates rapid mobilization and installation, significantly shortening the overall project timeline. In a tourist destination like Leavenworth, where visitor numbers peak during specific seasons, a quicker project turnaround is essential. This efficiency not only mitigates the impact on local businesses but also maximizes the benefits of the newly rehabilitated utility lines.

The ability to complete the project swiftly means that local businesses can resume normal operations sooner, allowing them to capitalize on the influx of tourists. Moreover, the timely completion of the project ensures that the community can continue to provide essential

services without prolonged interruptions. This efficiency is particularly vital in a town that relies heavily on seasonal tourism, as it allows for a smoother transition into peak visitor periods.

## **Setting a Precedent for Future Projects**

The innovative approach taken by Allied Trenchless in rehabilitating the aging sewer mains in Leavenworth exemplifies the benefits of modern trenchless technology. By utilizing THE SHOOTER, the company not only addressed critical infrastructure needs but also prioritized the community's well-being and economic vitality. The minimal disruption to daily activities and the time-efficient execution of the project underscores the advantages of adopting advanced rehabilitation techniques in urban settings.

As communities like Leavenworth continue to grow and evolve, the importance of maintaining essential utility lines while minimizing disruption will only increase. Allied Trenchless's commitment to leveraging state-of-the-art technologies sets a precedent for future projects, demonstrating that it is possible to balance infrastructure needs with the preservation of community life and tourism. This project serves as a model for other municipalities facing similar challenges, highlighting the potential for innovation to drive positive outcomes for both residents and visitors.

In conclusion, the successful rehabilitation of Leavenworth's sewer mains by Allied Trenchless not only enhances the town's infrastructure but also reinforces its status as a world-renowned tourist destination. By prioritizing community well-being and employing advanced technologies, Allied Trenchless has set a benchmark for future infrastructure projects, ensuring that the charm and accessibility of Leavenworth remain intact for generations to come.

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